

# Work Order ID 144127

April 04, 2016 3:12:21 PM

**\*144127\***

Page 1

Item ID: D4038-044 Accept **\*N900040100\*** Setup Start **\*NS1\***  
 Revision ID: Stop **\*NS2\***  
 Item Name: Angle Assy Aft RH  
 Start Date: 4/20/2016 Start Qty: 1.00 *\*1\* 2*  
 Required Date: 5/24/2016 Req'd Qty: 1.00 *\*1\* 2* Cust Item ID:  
 Reference: Customer:

Approvals: Process Plan: *ST* **20160402** Date: Tooling: Date: Run Start **\*NR1\***  
 QC: Date: SPC (Y/N): Date: Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                                    | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp                     |
|--------------------------------|-------------------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|------------------------------------|
| <b>Draw Nbr</b>                | <b>Revision Nbr</b>                                         |                      |         |        |              |               |               |                  |                                    |
| D4038                          | E                                                           |                      |         |        |              |               |               |                  |                                    |
| 100                            | Pick Kit                                                    | 0.00                 |         |        |              |               |               |                  |                                    |
| <b>*100*</b>                   |                                                             |                      |         |        |              |               |               |                  |                                    |
| Packaging                      | Memo                                                        | 0.00                 |         |        |              |               |               |                  | <i>DAS 6 2016</i>                  |
| Packaging                      |                                                             |                      |         |        |              |               |               |                  |                                    |
| 110                            |                                                             | 0.00                 |         |        |              |               |               |                  |                                    |
| <b>*110*</b>                   |                                                             |                      |         |        |              |               |               |                  |                                    |
| Small Fab                      | Memo                                                        | 0.00                 |         |        |              |               |               |                  | <i>2 FF MAY 17 2016</i>            |
| Small Fab                      | Assemble as per dwg                                         |                      |         |        |              |               |               |                  |                                    |
| 120                            | QC5- Inspect part completeness to step on W/O               | 0.00                 |         |        |              |               |               |                  |                                    |
| <b>*120*</b>                   |                                                             |                      |         |        |              |               |               |                  |                                    |
| QC                             | Memo                                                        | 0.00                 |         |        |              |               |               |                  | <i>(2) DAS 38 9-88</i>             |
| Quality Control                |                                                             |                      |         |        |              |               |               |                  | <i>MAY 17 2016</i>                 |
| 121                            | <i>Powder coat white as per dwg</i>                         |                      |         |        |              |               |               |                  |                                    |
|                                | <i>Mask holes with no bolts and mask interior of blocks</i> |                      |         |        |              |               |               |                  | <i>START: 10:10</i>                |
|                                |                                                             |                      |         |        |              |               |               |                  | <i>00. Ti 320°</i>                 |
|                                |                                                             |                      |         |        |              |               |               |                  | <i>FINISH: 10:40</i>               |
| 122                            | <i>QC3</i>                                                  |                      |         |        |              |               |               |                  | <i>2 16-05-25 238</i>              |
|                                |                                                             |                      |         |        |              |               |               |                  | <i>(2) DAS 38 9-88 MAY 25 2016</i> |

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

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| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><div style="display: flex; justify-content: space-between;"> <div>           Skid-tube <input type="checkbox"/><br/>           Machining <input type="checkbox"/><br/>           Thermoforming <input type="checkbox"/><br/>           Large Fab <input type="checkbox"/> </div> <div>           Cross tube <input type="checkbox"/><br/>           Small Fab <input type="checkbox"/><br/>           Finishing <input type="checkbox"/><br/>           Composite <input type="checkbox"/> </div> <div>           Water Jet <input type="checkbox"/><br/>           Prod. Eng. Coord. <input type="checkbox"/><br/>           Rec/Store/Packaging <input type="checkbox"/><br/>           Supplier <input type="checkbox"/> </div> <div>           Engineering <input type="checkbox"/><br/>           Quality <input type="checkbox"/><br/>           Other <input type="checkbox"/> </div> </div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |                                                                                                                    |  |
| Date : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Step #: _____                                                                                                                                                                      | QTY Effective : _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  | MRB (QSI042) Approval                                                                                              |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                    | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |  | Completed By<br><br><br>Lead hand / Supervisor<br>Approval Verification<br><br><br>QC / QA Coordinator<br>Approval |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                    |  |
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| <b>Root Cause</b><br><div style="display: flex;"> <div style="flex: 1;">           Environment <input type="checkbox"/><br/>           Design <input type="checkbox"/><br/>           Doc/Data <input type="checkbox"/><br/>           Equip/Tooling <input type="checkbox"/><br/>           Handling/Pre <input type="checkbox"/><br/>           Material <input type="checkbox"/><br/>           Internal Transport <input type="checkbox"/><br/>           Tribal Knowledge <input type="checkbox"/><br/>           LOA <input type="checkbox"/><br/>           Substation <input type="checkbox"/><br/>           Past Expiry Date <input type="checkbox"/><br/>           Misidentified <input type="checkbox"/> </div> <div style="flex: 1;">           No Re-verification <input type="checkbox"/><br/>           Operator <input type="checkbox"/><br/>           Offset/Setup <input type="checkbox"/><br/>           Supplier <input type="checkbox"/><br/>           Training <input type="checkbox"/><br/>           Use for Testing <input type="checkbox"/><br/>           Poor Information <input type="checkbox"/><br/>           Rushing <input type="checkbox"/><br/>           Product Improvement <input type="checkbox"/><br/>           Process Improvement <input type="checkbox"/><br/>           Manufacturing Process <input type="checkbox"/><br/>           Past Due <input type="checkbox"/> </div> </div> |                                                                                                                                                                                    | <b>FAULT CATEGORY</b><br><div style="display: flex;"> <div style="flex: 1;">           Pressure/Forced <input type="checkbox"/><br/>           Bending <input type="checkbox"/><br/>           Centre Not Concentric <input type="checkbox"/><br/>           Cracks <input type="checkbox"/><br/>           Crimp/Kink/Ripple/Wave <input type="checkbox"/><br/>           Cuffs <input type="checkbox"/><br/>           Crushing <input type="checkbox"/><br/>           Heat Treat <input type="checkbox"/><br/>           Wave/Twist in Tube <input type="checkbox"/><br/>           Marks/Chatter <input type="checkbox"/> </div> <div style="flex: 1;">           Temperature/Cure <input type="checkbox"/><br/>           Set-up <input type="checkbox"/><br/>           BOM/Route <input type="checkbox"/><br/>           Broken/Damage/Defect <input type="checkbox"/><br/>           Inspection Incomplete/Unqualified <input type="checkbox"/><br/>           Contamination <input type="checkbox"/><br/>           Countersink <input type="checkbox"/><br/>           Cut Too Short <input type="checkbox"/><br/>           Instructions Incomplete/Unclear <input type="checkbox"/><br/>           Drill Holes <input type="checkbox"/> </div> <div style="flex: 1;">           Power Loss/Surge <input type="checkbox"/><br/>           Folio/Program <input type="checkbox"/><br/>           Grain <input type="checkbox"/><br/>           Weld <input type="checkbox"/><br/>           Wrong Stock Pulled <input type="checkbox"/><br/>           Out of Sequence <input type="checkbox"/><br/>           Off-set <input type="checkbox"/><br/>           Mislabeled <input type="checkbox"/><br/>           Fit/Function <input type="checkbox"/><br/>           Misaligned/off center <input type="checkbox"/> </div> <div style="flex: 1;">           Positioned Wrong <input type="checkbox"/><br/>           Outside Dimensions <input type="checkbox"/><br/>           Over/Under tolerance <input type="checkbox"/><br/>           Part Incorrect <input type="checkbox"/><br/>           Part Lost/Missing <input type="checkbox"/><br/>           Part Moved <input type="checkbox"/><br/>           Drawing <input type="checkbox"/><br/>           Finish <input type="checkbox"/><br/>           Misread <input type="checkbox"/><br/>           Turning Sequence <input type="checkbox"/> </div> </div> |  |                                                                                                                    |  |
| OTHER : <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                                                                                                                                                                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |                                                                                                                    |  |

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**\*144127\***

Page 2

Item ID: D4038-044 Accept **\*N900040100\*** Setup Start **\*NS1\***  
Revision ID: Stop **\*NS2\***  
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Start Date: 4/20/2016 Start Qty: 1.00 **\*1\*** Cust Item ID:  
Required Date: 5/24/2016 Req'd Qty: 1.00 **\*1\*** Customer:  
Reference:

Approvals: Process Plan: \_\_\_\_\_ Date: \_\_\_\_\_ Tooling: \_\_\_\_\_ Date: \_\_\_\_\_ Run Start **\*NR1\***  
QC: \_\_\_\_\_ Date: \_\_\_\_\_ SPC (Y/N): \_\_\_\_\_ Date: \_\_\_\_\_ Stop **\*NR2\***

| Sequence ID/<br>Work Center ID | Operation<br>Description                          | Set Up/<br>Run Hours | Tool ID | Tool # | Plan<br>Code | Accept<br>Qty | Reject<br>Qty | Reject<br>Number | Insp.<br>Stamp      |
|--------------------------------|---------------------------------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|---------------------|
| 130                            | Identify as per dwg & Stock Location: <b>S4S4</b> | 0.00                 |         |        |              | <b>2</b>      | <b>0.00</b>   |                  | <b>MAY 2 5 2016</b> |
| <b>*130*</b>                   |                                                   |                      |         |        |              |               |               |                  |                     |
| Packaging                      | Memo                                              | 0.00                 |         |        |              |               |               |                  |                     |
| Packaging                      |                                                   |                      |         |        |              |               |               |                  |                     |
| 140                            | QC21- Final Inspection - Work Order Release       | 0.00                 |         |        |              |               |               |                  |                     |
| <b>*140*</b>                   |                                                   |                      |         |        |              |               |               |                  |                     |
| QC                             | Memo                                              | 0.00                 |         |        |              |               |               |                  |                     |
| Quality Control                |                                                   |                      |         |        |              |               |               |                  |                     |

**16/5/26** **MLJ** **MAY 2 6 2016**

DQA: \_\_\_\_\_ Date: \_\_\_\_\_



## WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: \_\_\_\_\_ Date: \_\_\_\_\_

Work Order update only ☐

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| Work Order: _____<br><br>Part No. _____<br><br>NCR No. _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                            | <b>DISPOSITION</b><br><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/><br>Suspected Unapproved <input type="checkbox"/> |                                               | <b>AGAINST DEPARTMENT/PROCESS</b><br><br><table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube <input type="checkbox"/></td> <td style="border: none;">Cross tube <input type="checkbox"/></td> <td style="border: none;">Water Jet <input type="checkbox"/></td> <td style="border: none;">Engineering <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Machining <input type="checkbox"/></td> <td style="border: none;">Small Fab <input type="checkbox"/></td> <td style="border: none;">Prod. Eng. Coord. <input type="checkbox"/></td> <td style="border: none;">Quality <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Thermoforming <input type="checkbox"/></td> <td style="border: none;">Finishing <input type="checkbox"/></td> <td style="border: none;">Rec/Store/Packaging <input type="checkbox"/></td> <td style="border: none;">Other <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Large Fab <input type="checkbox"/></td> <td style="border: none;">Composite <input type="checkbox"/></td> <td style="border: none;">Supplier <input type="checkbox"/></td> <td></td> </tr> </table> |                                   |                                   |                                       |                                              |                                   | Skid-tube <input type="checkbox"/>    | Cross tube <input type="checkbox"/> | Water Jet <input type="checkbox"/> | Engineering <input type="checkbox"/>     | Machining <input type="checkbox"/>          | Small Fab <input type="checkbox"/>        | Prod. Eng. Coord. <input type="checkbox"/> | Quality <input type="checkbox"/> | Thermoforming <input type="checkbox"/> | Finishing <input type="checkbox"/>           | Rec/Store/Packaging <input type="checkbox"/> | Other <input type="checkbox"/>               | Large Fab <input type="checkbox"/>        | Composite <input type="checkbox"/>             | Supplier <input type="checkbox"/>      |                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| Skid-tube <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| Machining <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Small Fab <input type="checkbox"/>                         | Prod. Eng. Coord. <input type="checkbox"/>                                                                                                                                         | Quality <input type="checkbox"/>              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                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| Thermoforming <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| Large Fab <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     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| <b>Root Cause</b><br><table style="width:100%; border: none;"> <tr> <td style="border: none;">Environment <input type="checkbox"/></td> <td style="border: none;">No Re-verification <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Design <input type="checkbox"/></td> <td style="border: none;">Operator <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Doc/Data <input type="checkbox"/></td> <td style="border: none;">Offset/Setup <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Equip/Tooling <input type="checkbox"/></td> <td style="border: none;">Supplier <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Handling/Pre <input type="checkbox"/></td> <td style="border: none;">Training <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Material <input type="checkbox"/></td> <td style="border: none;">Use for Testing <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Internal Transport <input type="checkbox"/></td> <td style="border: none;">Poor Information <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Tribal Knowledge <input type="checkbox"/></td> <td style="border: none;">Rushing <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">LOA <input type="checkbox"/></td> <td style="border: none;">Product Improvement <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Substation <input type="checkbox"/></td> <td style="border: none;">Process Improvement <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Past Expiry Date <input type="checkbox"/></td> <td style="border: none;">Manufacturing Process <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Misidentified <input type="checkbox"/></td> <td style="border: none;">Past Due <input type="checkbox"/></td> </tr> </table> |                                                            | Environment <input type="checkbox"/>                                                                                                                                               | No Re-verification <input type="checkbox"/>   | Design <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Operator <input type="checkbox"/> | Doc/Data <input type="checkbox"/> | Offset/Setup <input type="checkbox"/> | Equip/Tooling <input type="checkbox"/>       | Supplier <input type="checkbox"/> | Handling/Pre <input type="checkbox"/> | Training <input type="checkbox"/>   | Material <input type="checkbox"/>  | Use for Testing <input type="checkbox"/> | Internal Transport <input type="checkbox"/> | Poor Information <input type="checkbox"/> | Tribal Knowledge <input type="checkbox"/>  | Rushing <input type="checkbox"/> | LOA <input type="checkbox"/>           | Product Improvement <input type="checkbox"/> | Substation <input type="checkbox"/>          | Process Improvement <input type="checkbox"/> | Past Expiry Date <input type="checkbox"/> | Manufacturing Process <input type="checkbox"/> | Misidentified <input type="checkbox"/> | Past Due <input type="checkbox"/> | <b>FAULT CATEGORY</b><br><table style="width:100%; border: none;"> <tr> <td style="border: none;">Pressure/Forced <input type="checkbox"/></td> <td style="border: none;">Temperature/Cure <input type="checkbox"/></td> <td style="border: none;">Power Loss/Surge <input type="checkbox"/></td> <td style="border: none;">Positioned Wrong <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Bending <input type="checkbox"/></td> <td style="border: none;">Set-up <input type="checkbox"/></td> <td style="border: none;">Folio/Program <input type="checkbox"/></td> <td style="border: none;">Outside Dimensions <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Centre Not Concentric <input type="checkbox"/></td> <td style="border: none;">BOM/Route <input type="checkbox"/></td> <td style="border: none;">Grain <input type="checkbox"/></td> <td style="border: none;">Over/Under tolerance <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Cracks <input type="checkbox"/></td> <td style="border: none;">Broken/Damage/Defect <input type="checkbox"/></td> <td style="border: none;">Weld <input type="checkbox"/></td> <td style="border: none;">Part Incorrect <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Crimp/Kink/Ripple/Wave <input type="checkbox"/></td> <td style="border: none;">Inspection Incomplete/Unqualified <input type="checkbox"/></td> <td style="border: none;">Wrong Stock Pulled <input type="checkbox"/></td> <td style="border: none;">Part Lost/Missing <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Cuffs <input type="checkbox"/></td> <td style="border: none;">Contamination <input type="checkbox"/></td> <td style="border: none;">Out of Sequence <input type="checkbox"/></td> <td style="border: none;">Part Moved <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Crushing <input type="checkbox"/></td> <td style="border: none;">Countersink <input type="checkbox"/></td> <td style="border: none;">Off-set <input type="checkbox"/></td> <td style="border: none;">Drawing <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Heat Treat <input type="checkbox"/></td> <td style="border: none;">Cut Too Short <input type="checkbox"/></td> <td style="border: none;">Mislabeled <input type="checkbox"/></td> <td style="border: none;">Finish <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Wave/Twist in Tube <input type="checkbox"/></td> <td style="border: none;">Instructions Incomplete/Unclear <input type="checkbox"/></td> <td style="border: none;">Fit/Function <input type="checkbox"/></td> <td style="border: none;">Misread <input type="checkbox"/></td> </tr> <tr> <td style="border: none;">Marks/Chatter <input type="checkbox"/></td> <td style="border: none;">Drill Holes <input type="checkbox"/></td> <td style="border: none;">Misaligned/off center <input type="checkbox"/></td> <td style="border: none;">Turning Sequence <input type="checkbox"/></td> </tr> </table> |  |  |  |  |  | Pressure/Forced <input type="checkbox"/> | Temperature/Cure <input type="checkbox"/> | Power Loss/Surge <input type="checkbox"/> | Positioned Wrong <input type="checkbox"/> | Bending <input type="checkbox"/> | Set-up <input type="checkbox"/> | Folio/Program <input type="checkbox"/> | Outside Dimensions <input type="checkbox"/> | Centre Not Concentric <input type="checkbox"/> | BOM/Route <input type="checkbox"/> | Grain <input type="checkbox"/> | Over/Under tolerance <input type="checkbox"/> | Cracks <input type="checkbox"/> | Broken/Damage/Defect <input type="checkbox"/> | Weld <input type="checkbox"/> | Part Incorrect <input type="checkbox"/> | Crimp/Kink/Ripple/Wave <input type="checkbox"/> | Inspection Incomplete/Unqualified <input type="checkbox"/> | Wrong Stock Pulled <input type="checkbox"/> | Part Lost/Missing <input type="checkbox"/> | Cuffs <input type="checkbox"/> | Contamination <input type="checkbox"/> | Out of Sequence <input type="checkbox"/> | Part Moved <input type="checkbox"/> | Crushing <input type="checkbox"/> | Countersink <input type="checkbox"/> | Off-set <input type="checkbox"/> | Drawing <input type="checkbox"/> | Heat Treat <input type="checkbox"/> | Cut Too Short <input type="checkbox"/> | Mislabeled <input type="checkbox"/> | Finish <input type="checkbox"/> | Wave/Twist in Tube <input type="checkbox"/> | Instructions Incomplete/Unclear <input type="checkbox"/> | Fit/Function <input type="checkbox"/> | Misread <input type="checkbox"/> | Marks/Chatter <input type="checkbox"/> | Drill Holes <input type="checkbox"/> | Misaligned/off center <input type="checkbox"/> | Turning Sequence <input type="checkbox"/> |
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| Tribal Knowledge <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| LOA <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           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| Substation <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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| Past Expiry Date <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              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| Misidentified <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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| Pressure/Forced <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               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| Bending <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       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| Centre Not Concentric <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| Cracks <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| Crimp/Kink/Ripple/Wave <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        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| Cuffs <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         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| Crushing <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      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| Heat Treat <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    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| Wave/Twist in Tube <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            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| Marks/Chatter <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 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                                                                                                                                                                                             |  |  |  |  |  |                                          |                                           |                                           |                                           |                                  |                                 |                                        |                                             |                                                |                                    |                                |                                               |                                 |                                               |                               |                                         |                                                 |                                                            |                                             |                                            |                                |                                        |                                          |                                     |                                   |                                      |                                  |                                  |                                     |                                        |                                     |                                 |                                             |                                                          |                                       |                                  |                                        |                                      |                                                |                                           |

# Picklist Print

April 04, 2016 3:12:25 PM

Page 1

Work Order ID: 144127

**\*144127\***

Parent Item: D4038-044

**\*D4038-044\***

Parent Item Name: Angle Assy Aft RH

Start Date: 4/20/2016

Required Date: 5/24/2016

Start Qty: 1.00

Required Qty: 1.00

Comments: IPP REV:A NEW ISSUE 10-04-21 JLM VERIFIED BY:EC IPP  
Rev:B 11.01.31 as per dwg rev.c DD verified by:ec

| Component Item ID/<br>Item Name | Replacement<br>Item ID | Mfg/<br>Purch | Bin<br>Item | Primary<br>Location | Last<br>Location | Route<br>Seq ID | Unit of<br>Measure | Qty on<br>Hand | Qty per Kit | Total<br>Qty    | Qty<br>Issued | Date<br>Issued | Status |
|---------------------------------|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|-----------------|---------------|----------------|--------|
| D4038-4                         |                        | Manufactured  | No          |                     |                  | 100             | Each               | 1.0000         | 1           | 1               |               |                |        |
| <b>*D4038-4*</b>                |                        |               |             |                     |                  |                 |                    |                | <b>**</b>   |                 |               |                |        |
| Angle, Aft, RH                  |                        |               |             |                     |                  |                 |                    |                |             |                 |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  |                 |                    | <u>Loc Qty</u> |             | <u>Loc Code</u> |               |                |        |
|                                 |                        |               |             | ST513               |                  |                 |                    | 1              |             |                 |               |                |        |
|                                 |                        |               |             | 70415               |                  |                 |                    | 1              |             |                 |               |                |        |
| D4038-8                         |                        | Manufactured  | No          |                     |                  | 100             | Each               | 1.0000         | 1           | 1               |               |                |        |
| <b>*D4038-8*</b>                |                        |               |             |                     |                  |                 |                    |                | <b>**</b>   |                 |               |                |        |
| Block                           |                        |               |             |                     |                  |                 |                    |                |             |                 |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  |                 |                    | <u>Loc Qty</u> |             | <u>Loc Code</u> |               |                |        |
|                                 |                        |               |             | ST072               |                  |                 |                    | 1              |             |                 |               |                |        |
|                                 |                        |               |             | 70419               |                  |                 |                    | 1              |             |                 |               |                |        |
| D4038-12                        |                        | Manufactured  | No          |                     |                  | 100             | Each               | 1.0000         | 1           | 1               |               |                |        |
| <b>*D4038-12*</b>               |                        |               |             |                     |                  |                 |                    |                | <b>**</b>   |                 |               |                |        |
| Block                           |                        |               |             |                     |                  |                 |                    |                |             |                 |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  |                 |                    | <u>Loc Qty</u> |             | <u>Loc Code</u> |               |                |        |
|                                 |                        |               |             | st073               |                  |                 |                    | 1              |             |                 |               |                |        |
|                                 |                        |               |             | 70423               |                  |                 |                    | 1              |             |                 |               |                |        |
| AN3-14A                         |                        | Purchased     | No          |                     |                  | 100             | Each               | 97.0000        | 2           | 2               |               |                |        |
| <b>*AN3-14A*</b>                |                        |               |             |                     |                  |                 |                    |                | <b>**</b>   |                 |               |                |        |
| Bolt                            |                        |               |             |                     |                  |                 |                    |                |             |                 |               |                |        |
|                                 |                        |               |             | <u>Location</u>     |                  |                 |                    | <u>Loc Qty</u> |             | <u>Loc Code</u> |               |                |        |
|                                 |                        |               |             | over003             |                  |                 |                    | 80             |             |                 |               |                |        |
|                                 |                        |               |             | m133992             |                  |                 |                    | 50             |             |                 |               |                |        |
|                                 |                        |               |             | m134360             |                  |                 |                    | 30             |             |                 |               |                |        |
|                                 |                        |               |             | ST349               |                  |                 |                    | 17             |             |                 |               |                |        |
|                                 |                        |               |             | m134167             |                  |                 |                    | 17             |             |                 |               |                |        |

# Picklist Print

April 04, 2016 3:12:25 PM

Page 2

Work Order ID: 144127

**\*144127\***

Parent Item: D4038-044

**\*D4038-044\***

Parent Item Name: Angle Assy Aft RH

Start Date: 4/20/2016

Required Date: 5/24/2016

Start Qty: 1.00

Required Qty: 1.00

MS21042L3

Purchased

No

100

Each

2,067.000

2

2

**\*MS21042L3\***

**\*\***

Nut

Location

Loc Qty

Loc Code

FP001

100

m133790

100

GA

798

m133790

6

m134360

792

Return2016

1

M132382

1

ST304

1168

m134039

12

m134360

1156

NAS1149D0363J

Purchased

No

100

Each

2,280.000

4

4

**\*NAS1149D0363J\***

**\*\***

Washer

Location

Loc Qty

Loc Code

GA

598

m134055

598

Return2016

2

m132317

2

ST260a

1000

m134606

1000

ST263

680

m134370

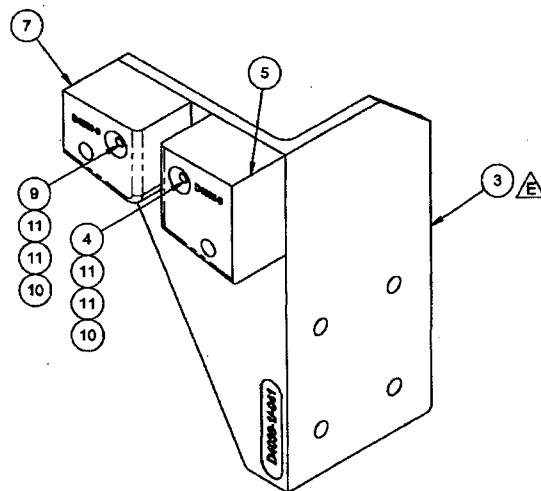
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April 04, 2016 3:12:26 PM

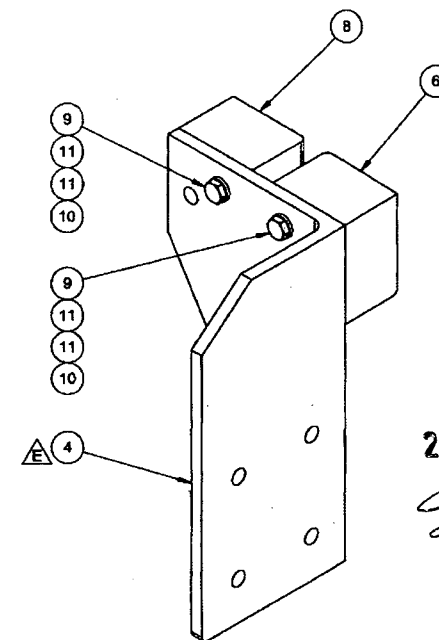
Shop Packet Print

Page 2

| ITEM NO. | QTY. -041 | QTY. -042 | PART NUMBER   | DESCRIPTION             |
|----------|-----------|-----------|---------------|-------------------------|
| 1        | X         |           | D4038-041     | ANGLE ASSEMBLY, FWD, LH |
| 2        |           | X         | D4038-042     | ANGLE ASSEMBLY, FWD, RH |
| 3        | 1         |           | D4038-1       | ANGLE, FWD, LH          |
| 4        |           | 1         | D4038-2       | ANGLE, FWD, RH          |
| 5        | 1         |           | D4038-5       | BLOCK                   |
| 6        |           | 1         | D4038-6       | BLOCK                   |
| 7        | 1         |           | D4038-9       | BLOCK                   |
| 8        |           | 1         | D4038-10      | BLOCK                   |
| 9        | 2         | 2         | AN3-14A       | BOLT                    |
| 10       | 2         | 2         | MS21042L3     | NUT                     |
| 11       | 4         | 4         | NAS1149D0363J | WASHER (AN960JD10)      |



**D4038-041 ANGLE ASSEMBLY, FWD, LH**



**D4038-042 ANGLE ASSEMBLY, FWD, RH**

20160405

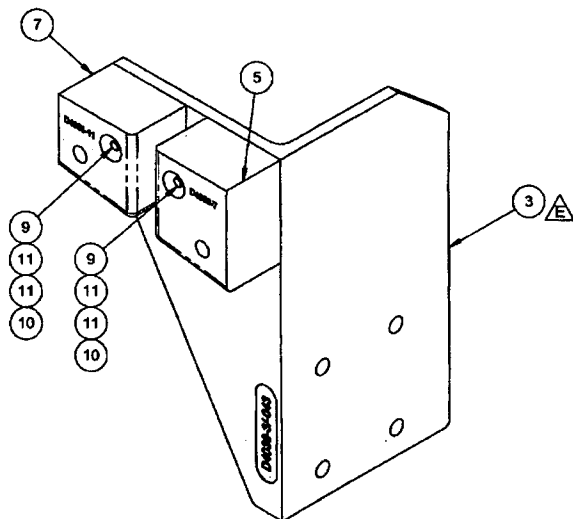
SLA  
144127

**RELEASED**  
2011-04-21  
JMB

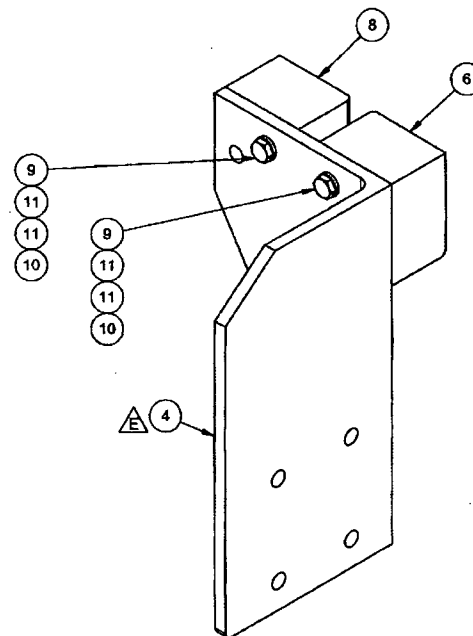
|            |                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                     |               |
|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| E          | 1.18 X 1.00 CHAMFER WAS R1.00. REF: NCR11-543.                                                                                                                                                                                               | MB                                                                                                                                                                                                                                                                                  | 11.04.11      |
| D          | REVISED D4038-7/8-11/12 AS FOLLOWS: 1.87 WAS 1.73 (C7-9); 2.14 WAS 2.00 (C4-9); 2.13 WAS 2.00 (C7-10); 1.86 WAS 1.73 (C4-10); 1.52 WAS 1.38 (C7-13); 1.79 WAS 1.65 (C4-13); 1.77 WAS 1.65 (C7-14); 1.49 WAS 1.38 (C4-14). REASON: NCR11-458. | MB                                                                                                                                                                                                                                                                                  | 11.03.03      |
| C          | REVISED D4038-3/4 AS FOLLOWS: 0.589 WAS 0.714 (B2-5, B4-6); D4038-043/044 ARE AFFECTED. REASON: NCR11-399.                                                                                                                                   | MB                                                                                                                                                                                                                                                                                  | 11.01.20      |
| B          | REVISED DIMENSIONS ALL SHEETS, ADD Ø0.316 HOLES IN -1/2/-3/4 PARTS, ADD RADIUS TO -1/2/-3/4 PARTS                                                                                                                                            | HS                                                                                                                                                                                                                                                                                  | 10.01.05      |
| A          | NEW ISSUE                                                                                                                                                                                                                                    | HS                                                                                                                                                                                                                                                                                  | 08.12.14      |
| REV.       | DESCRIPTION                                                                                                                                                                                                                                  | BY                                                                                                                                                                                                                                                                                  | DATE          |
| DESIGN     | <i>[Signature]</i>                                                                                                                                                                                                                           | <b>DART AEROSPACE LTD</b><br>HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                            |               |
| DRAWN      | <i>[Signature]</i>                                                                                                                                                                                                                           |                                                                                                                                                                                                                                                                                     |               |
| CHECKED    | <i>[Signature]</i>                                                                                                                                                                                                                           | DRAWING NO.                                                                                                                                                                                                                                                                         | REV. E        |
| MFG. APPR. | <i>[Signature]</i>                                                                                                                                                                                                                           | <b>D4038</b>                                                                                                                                                                                                                                                                        | SHEET 1 OF 14 |
| APPROVED   | <i>[Signature]</i>                                                                                                                                                                                                                           | TITLE                                                                                                                                                                                                                                                                               | SCALE         |
| DE APPR.   | <i>[Signature]</i>                                                                                                                                                                                                                           | <b>BRACKET</b>                                                                                                                                                                                                                                                                      | NTS           |
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NOTES:  
1) MATERIAL: N/A  
2) FINISH: POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3  
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED  
4) UNITS: INCHES UNLESS OTHERWISE NOTED  
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX  
6) IDENTIFICATION: N/A  
7) WEIGHT: -041 - 1.75 lbs  
          -042 - 1.74 lbs

| ITEM NO. | QTY. -043 | QTY. -044 | PART NUMBER   | DESCRIPTION             |
|----------|-----------|-----------|---------------|-------------------------|
| 1        | X         |           | D4038-043     | ANGLE ASSEMBLY, AFT, LH |
| 2        |           | X         | D4038-044     | ANGLE ASSEMBLY, AFT, RH |
| 3        | 1         |           | D4038-3       | ANGLE, AFT, LH          |
| 4        |           | 1         | D4038-4       | ANGLE, AFT, RH          |
| 5        | 1         |           | D4038-7       | BLOCK                   |
| 6        |           | 1         | D4038-8       | BLOCK                   |
| 7        | 1         |           | D4038-11      | BLOCK                   |
| 8        |           | 1         | D4038-12      | BLOCK                   |
| 9        | 2         | 2         | AN3-14A       | BOLT                    |
| 10       | 2         | 2         | MS21042L3     | NUT                     |
| 11       | 4         | 4         | NAS1149D0363J | WASHER (AN960JD10)      |



**D4038-043 ANGLE ASSEMBLY, AFT, LH**



**D4038-044 ANGLE ASSEMBLY, AFT, RH**

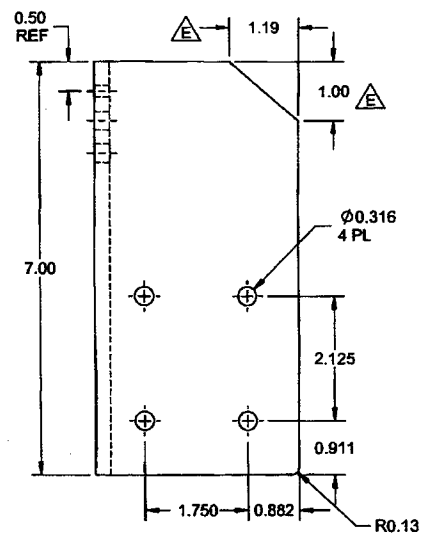
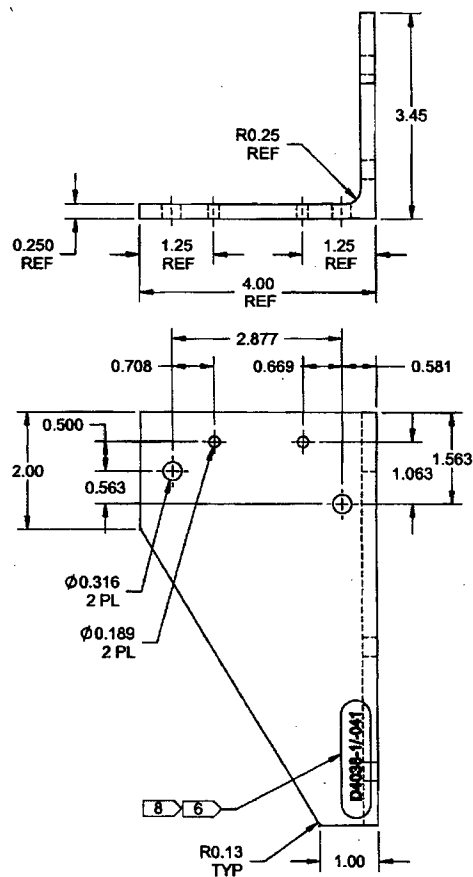
**NOTES:**

- 1) MATERIAL: N/A
- 2) FINISH: POWDER COAT "WHITE" (4.3.5.1) PER DART QSI 005 4.3
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: N/A
- 7) WEIGHT: -043 - 1.96 lbs  
-044 - 1.74 lbs

**RELEASED**  
2011-04-21

|            |          |                                                                                                                                                                                                                                                                          |               |
|------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                |               |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                              |               |
| CHECKED    |          | DRAWING NO. <b>D4038</b>                                                                                                                                                                                                                                                 | REV. E        |
| MFG. APPR. |          |                                                                                                                                                                                                                                                                          | SHEET 2 OF 14 |
| APPROVED   |          | TITLE <b>BRACKET</b>                                                                                                                                                                                                                                                     | SCALE         |
| DE APPR.   |          |                                                                                                                                                                                                                                                                          | NTS           |
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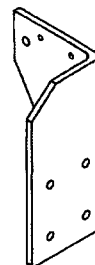
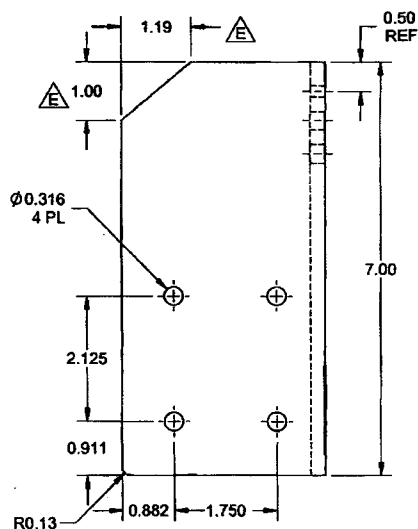
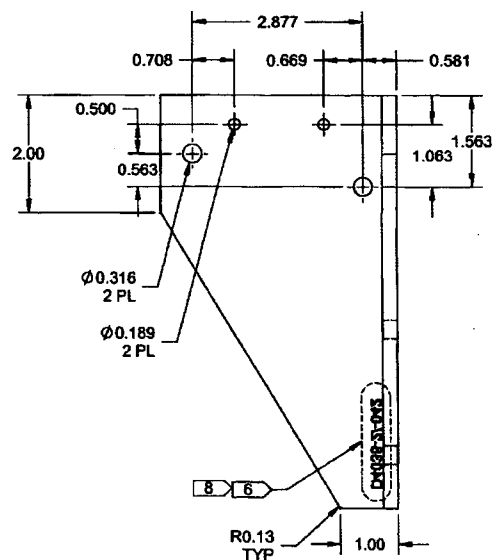
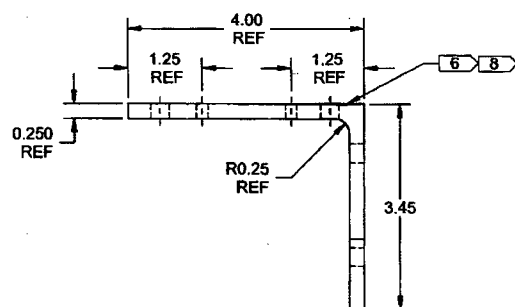
**D4038-1 ANGLE, FWD, LH**

**RELEASED**  
2011-04-20  
JAP

**NOTES:**

- 1) MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE, 4.000 X 4.000 X 0.250  
PER AMS-QQ-A-200/8  
REF DART SPEC M6061T6A4.000XW250
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN (NEAR SIDE ONLY) TO MAX  
DEPTH OF 0.010 IN 0.18 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 1.03 lbs
- 8) SPOT FACE MAX DEPTH OF 0.010 PRIOR TO MARKING

|            |          |                                                                                                                                                                                                                                                                                |               |
|------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                      |               |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                    |               |
| CHECKED    |          | DRAWING NO. <b>D4038</b>                                                                                                                                                                                                                                                       | REV. E        |
| MFG. APPR. |          |                                                                                                                                                                                                                                                                                | SHEET 3 OF 14 |
| APPROVED   |          | TITLE <b>BRACKET</b>                                                                                                                                                                                                                                                           | SCALE         |
| DE APPR.   |          |                                                                                                                                                                                                                                                                                | NTS           |
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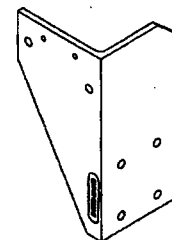
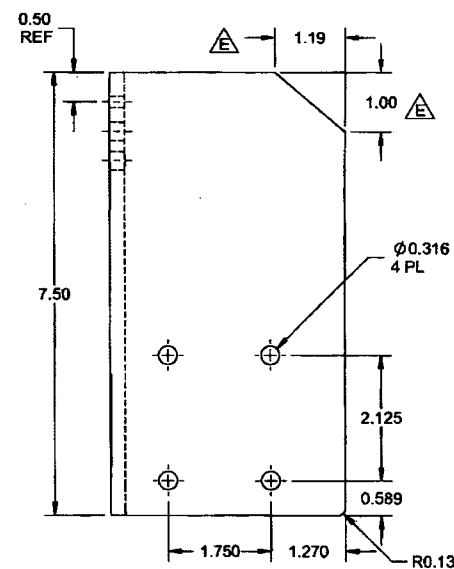
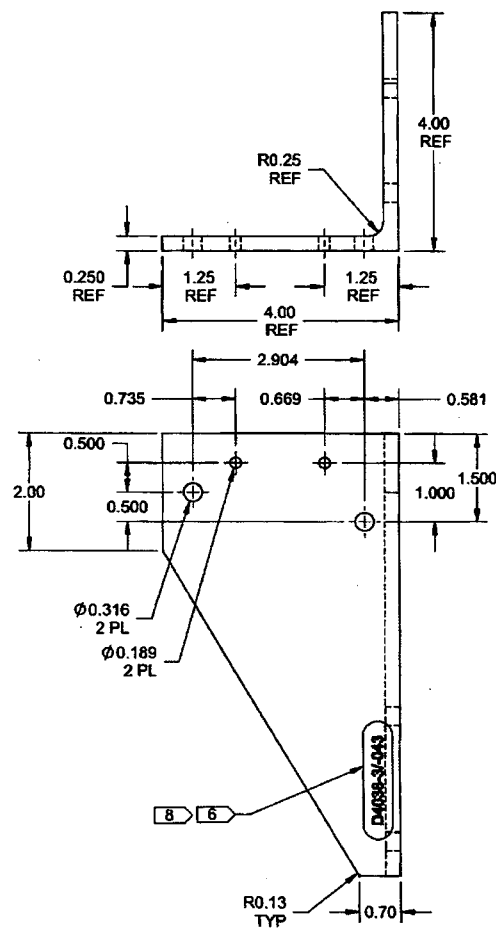
**D4038-2 ANGLE, FWD, RH**

**NOTES:**

- 1) MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE, 4.000 X 4.000 X 0.250  
PER AMS-QQ-A-200/8  
REF DART SPEC M6061T6A4.000XW250
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN (FAR SIDE ONLY) TO MAX  
DEPTH OF 0.010 IN 0.18 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 1.03 lbs
- 8) SPOT FACE MAX DEPTH OF 0.010 PRIOR TO MARKING

**RELEASED**  
R 2011-04-20

|            |          |                                                                                                                                                                                                                                                                                                  |               |
|------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                        |               |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                                      |               |
| CHECKED    |          | DRAWING NO. <b>D4038</b>                                                                                                                                                                                                                                                                         | REV. E        |
| MFG. APPR. |          |                                                                                                                                                                                                                                                                                                  | SHEET 4 OF 14 |
| APPROVED   |          | TITLE <b>BRACKET</b>                                                                                                                                                                                                                                                                             | SCALE         |
| DE APPR.   |          |                                                                                                                                                                                                                                                                                                  | NTS           |
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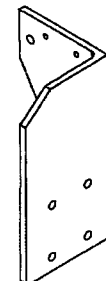
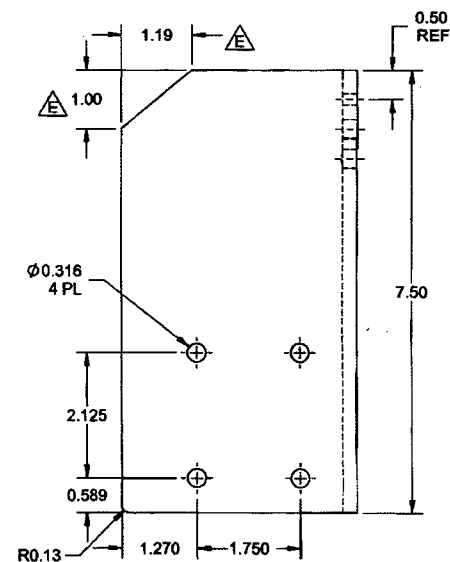
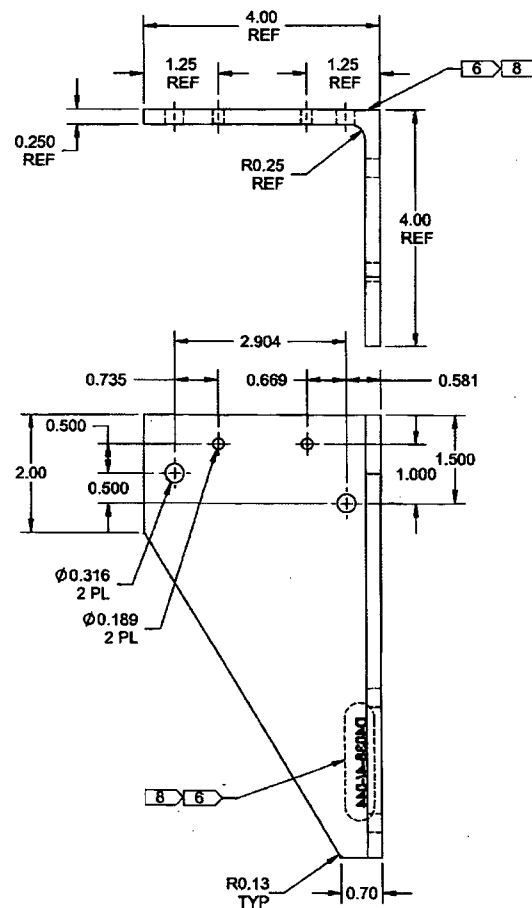
# NOTES:

- 1) MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE, 4.000 X 4.000 X 0.250  
PER AMS-QQ-A-200/8  
REF DART SPEC M6061T6A4.000XW250
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN (NEAR SIDE ONLY) TO MAX  
DEPTH OF 0.010 IN 0.18 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 1.18 lbs
- 8) SPOT FACE MAX DEPTH OF 0.010 PRIOR TO MARKING

## **D4038-3 ANGLE, AFT. LH**

|            |          |                                                                                                                                                                                                                                                                                                     |               |
|------------|----------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                           |               |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                                         |               |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                                                         | REV. E        |
| MFG. APPR. |          | <b>D4038</b>                                                                                                                                                                                                                                                                                        | SHEET 5 OF 14 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                                               | SCALE         |
| DE APPR.   |          | <b>BRACKET</b>                                                                                                                                                                                                                                                                                      | NTS           |
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RELEASED  
2011-04-21  
JMT



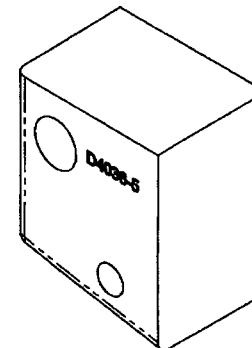
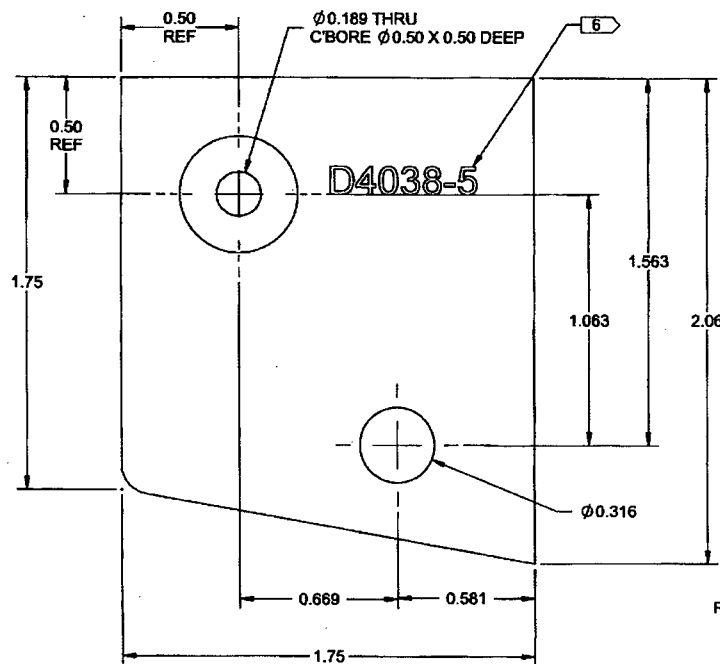
**D4038-4 ANGLE, AFT. RH**

**NOTES:**

- 1) MATERIAL: 6061-T6/T6510/T6511 ALUMINUM ANGLE, 4.000 X 4.000 X 0.250  
PER AMS-QQ-A-200/8  
REF DART SPEC M6061T6A4.000XW250
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN (FAR SIDE ONLY) TO MAX  
DEPTH OF 0.010 IN 0.18 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 1.18 lbs
- 8) SPOT FACE MAX DEPTH OF 0.010 PRIOR TO MARKING

|            |          |                                                                                                                                                                                                                                                                                                      |               |
|------------|----------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                            |               |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                                          |               |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                                                          | REV. E        |
| MFG. APPR. |          | D4038                                                                                                                                                                                                                                                                                                | SHEET 6 OF 14 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                                                | SCALE         |
| DE APPR.   |          | BRACKET                                                                                                                                                                                                                                                                                              | NTS           |
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R 2011-05 21  
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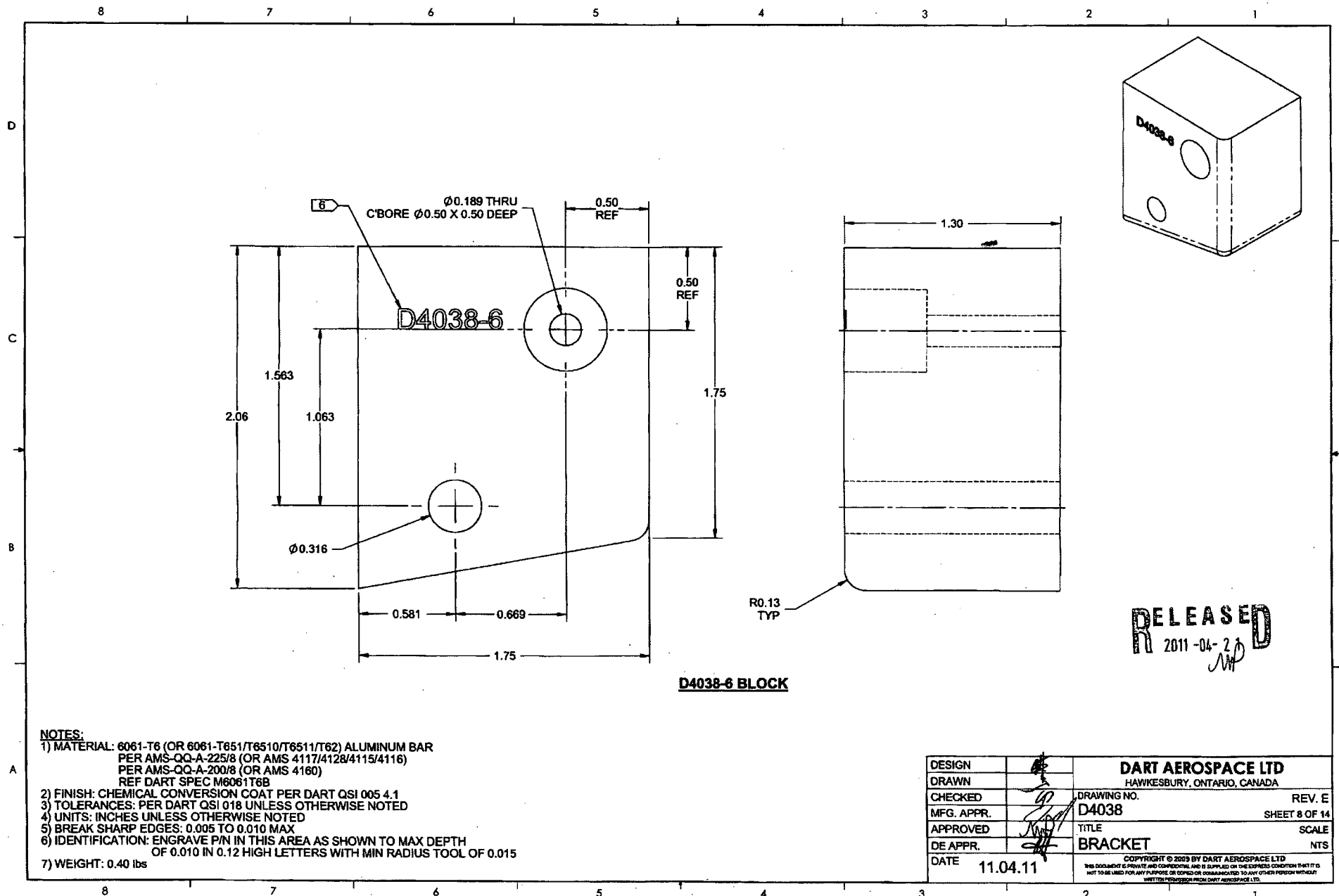
**D4038-5 BLOCK**

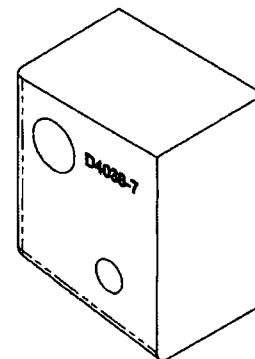
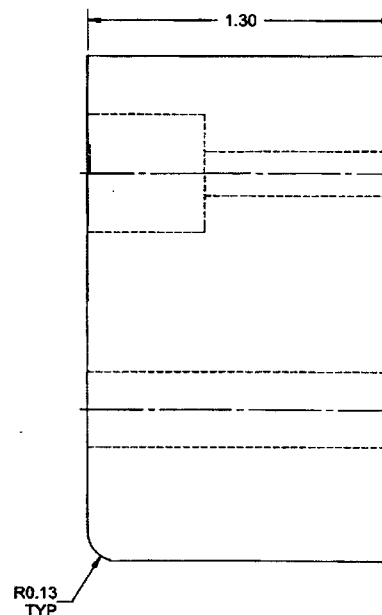
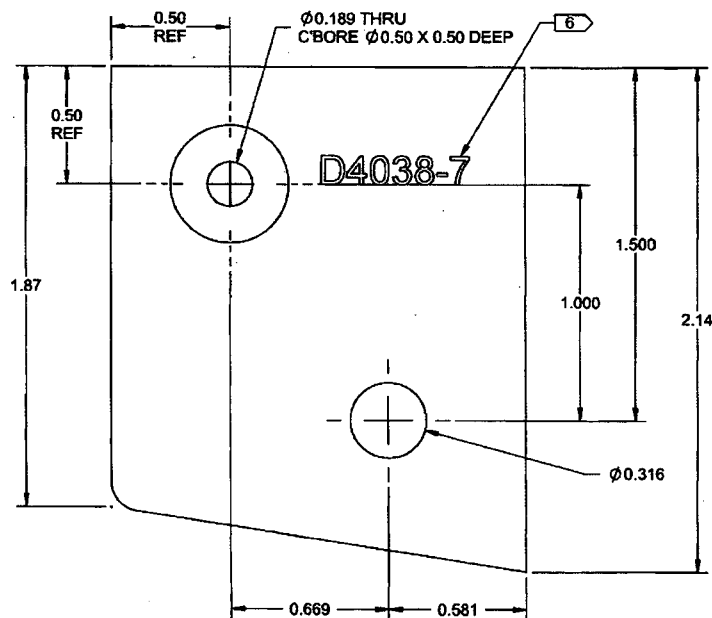
**NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6511/T62) ALUMINUM BAR  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN TO MAX DEPTH  
OF 0.010 IN 0.12 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 0.40 lbs

|            |                 |                                                                                                                                                                                                                                                                                                  |               |
|------------|-----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| DESIGN     |                 | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                        |               |
| DRAWN      |                 | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                                      |               |
| CHECKED    |                 | DRAWING NO.                                                                                                                                                                                                                                                                                      | REV. E        |
| MFG. APPR. |                 | <b>D4038</b>                                                                                                                                                                                                                                                                                     | SHEET 7 OF 14 |
| APPROVED   |                 | TITLE                                                                                                                                                                                                                                                                                            | SCALE         |
| DE APPR.   |                 | <b>BRACKET</b>                                                                                                                                                                                                                                                                                   | NTS           |
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R 2011-04-01 D  
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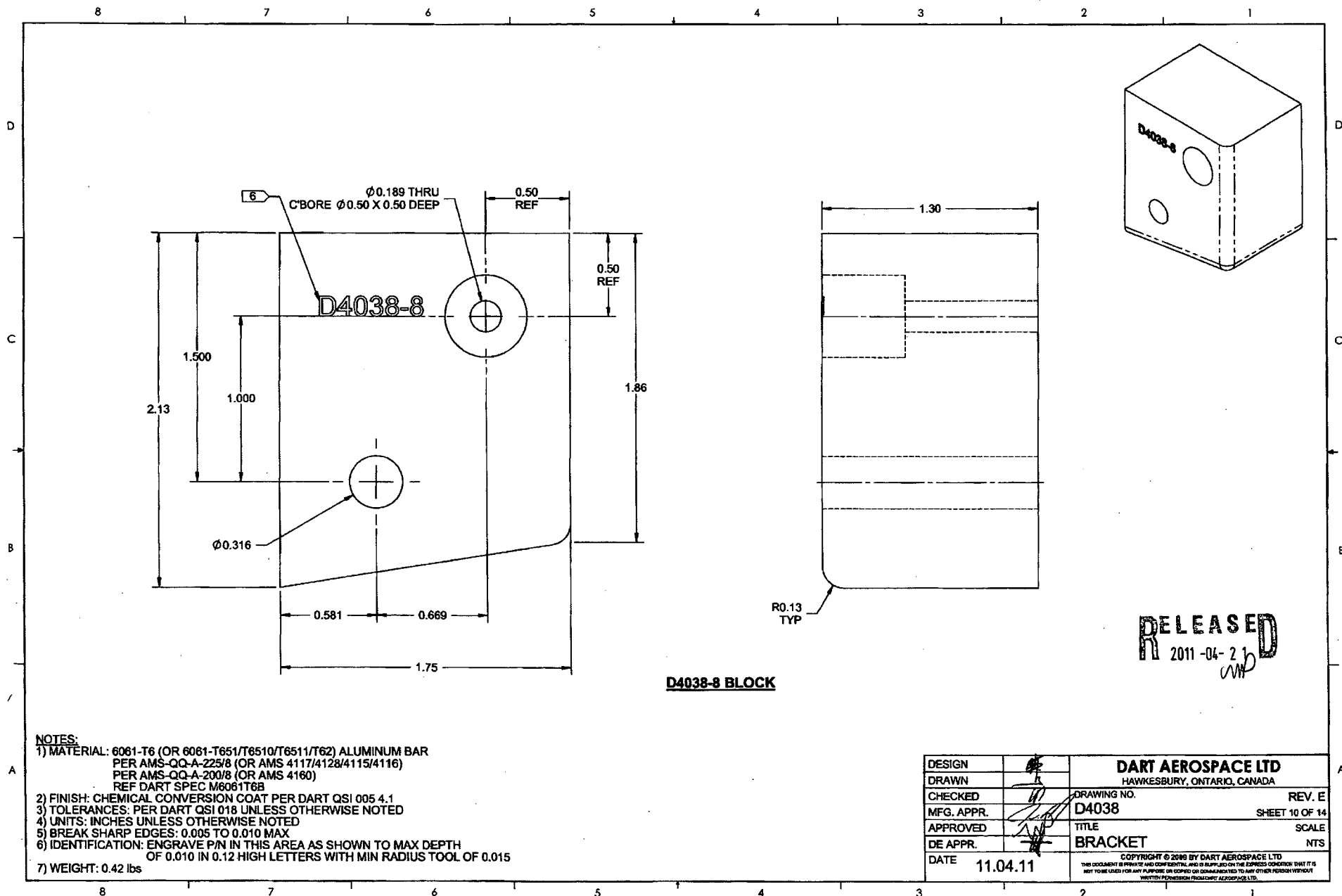
**D4038-7 BLOCK**

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2011-04-21  
*MP*

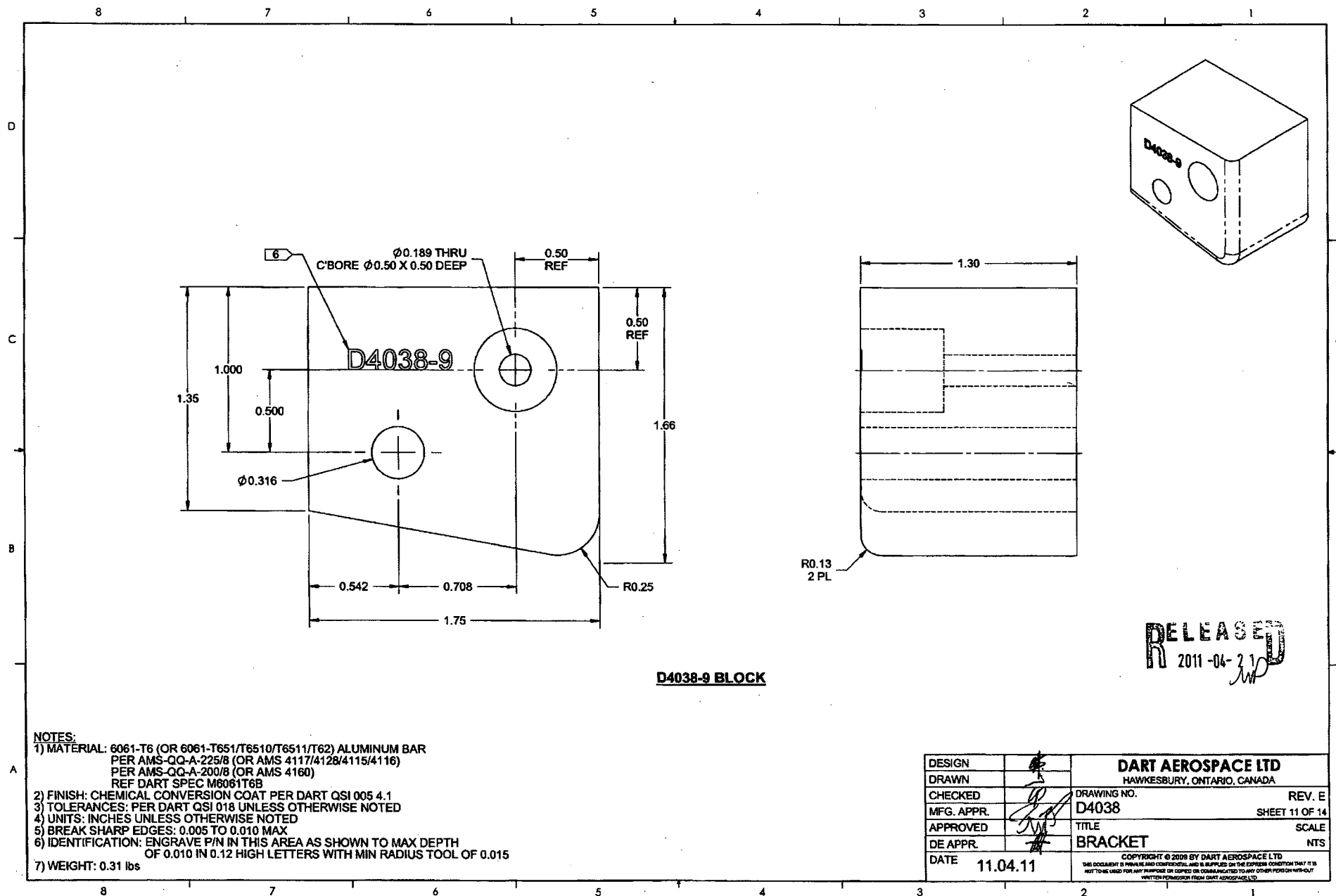
**NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6511/T62) ALUMINUM BAR  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN TO MAX DEPTH  
OF 0.010 IN 0.12 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 0.42 lbs

|            |          |                                                                                                                                                                                                                                                                                                  |               |
|------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                        |               |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                                      |               |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                                                      | REV. E        |
| MFG. APPR. |          | <b>D4038</b>                                                                                                                                                                                                                                                                                     | SHEET 9 OF 14 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                                            | SCALE         |
| DE APPR.   |          | <b>BRACKET</b>                                                                                                                                                                                                                                                                                   | NTS           |
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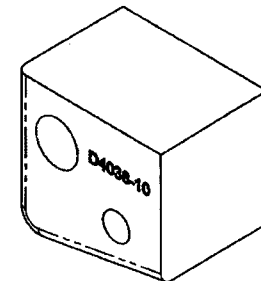
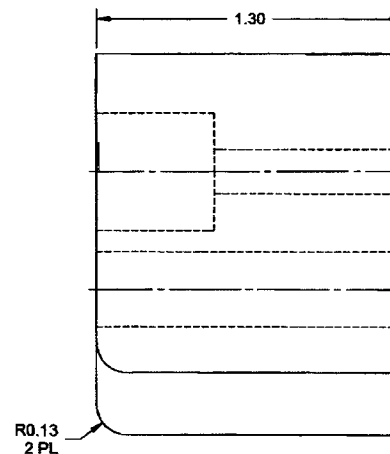
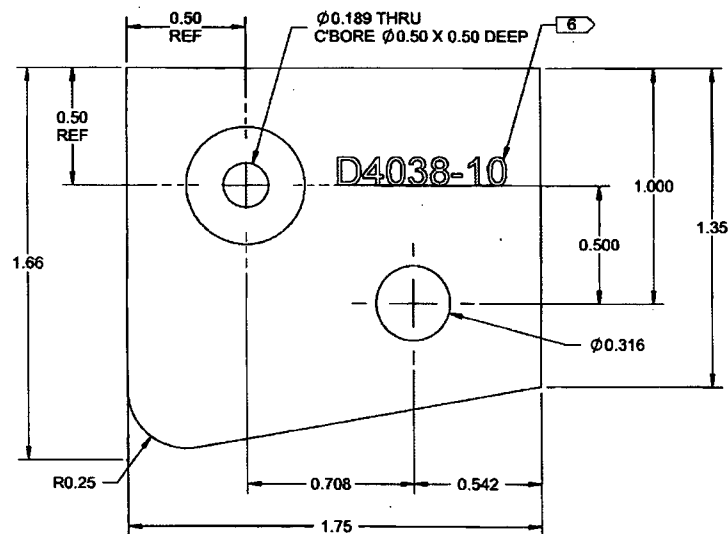






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2011-04-20

|                                                                                                                                                                                                                                |          |                                        |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------------------------------------|----------------|
| DESIGN                                                                                                                                                                                                                         |          | <b>DART AEROSPACE LTD</b>              |                |
| DRAWN                                                                                                                                                                                                                          |          | HAWKESBURY, ONTARIO, CANADA            |                |
| CHECKED                                                                                                                                                                                                                        |          | DRAWING NO.                            | REV. E         |
| MFG. APPR.                                                                                                                                                                                                                     |          | D4038                                  | SHEET 11 OF 14 |
| APPROVED                                                                                                                                                                                                                       |          | TITLE                                  | SCALE          |
| DE APPR.                                                                                                                                                                                                                       |          | BRACKET                                | NTS            |
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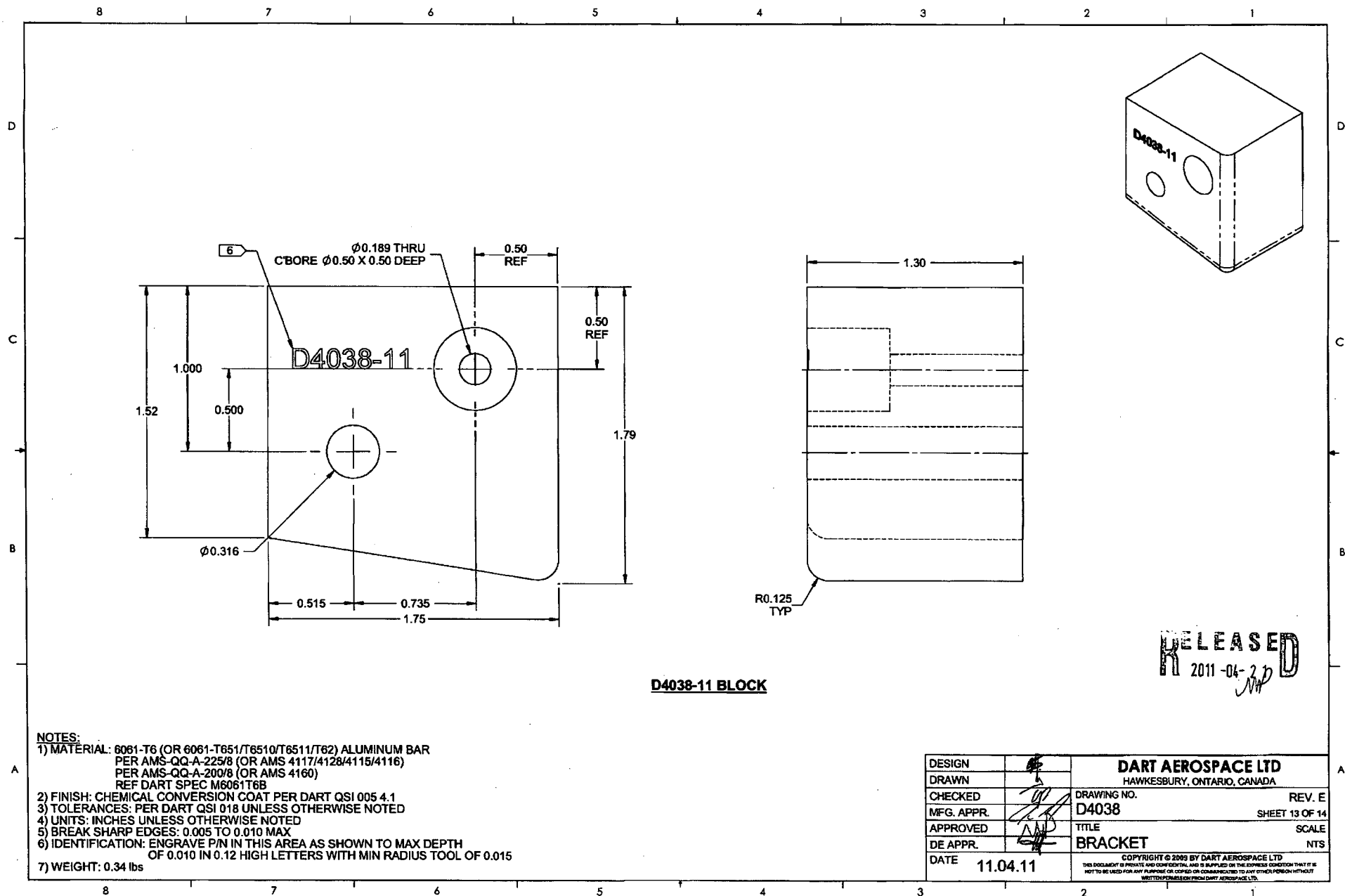
**D4038-10 BLOCK**

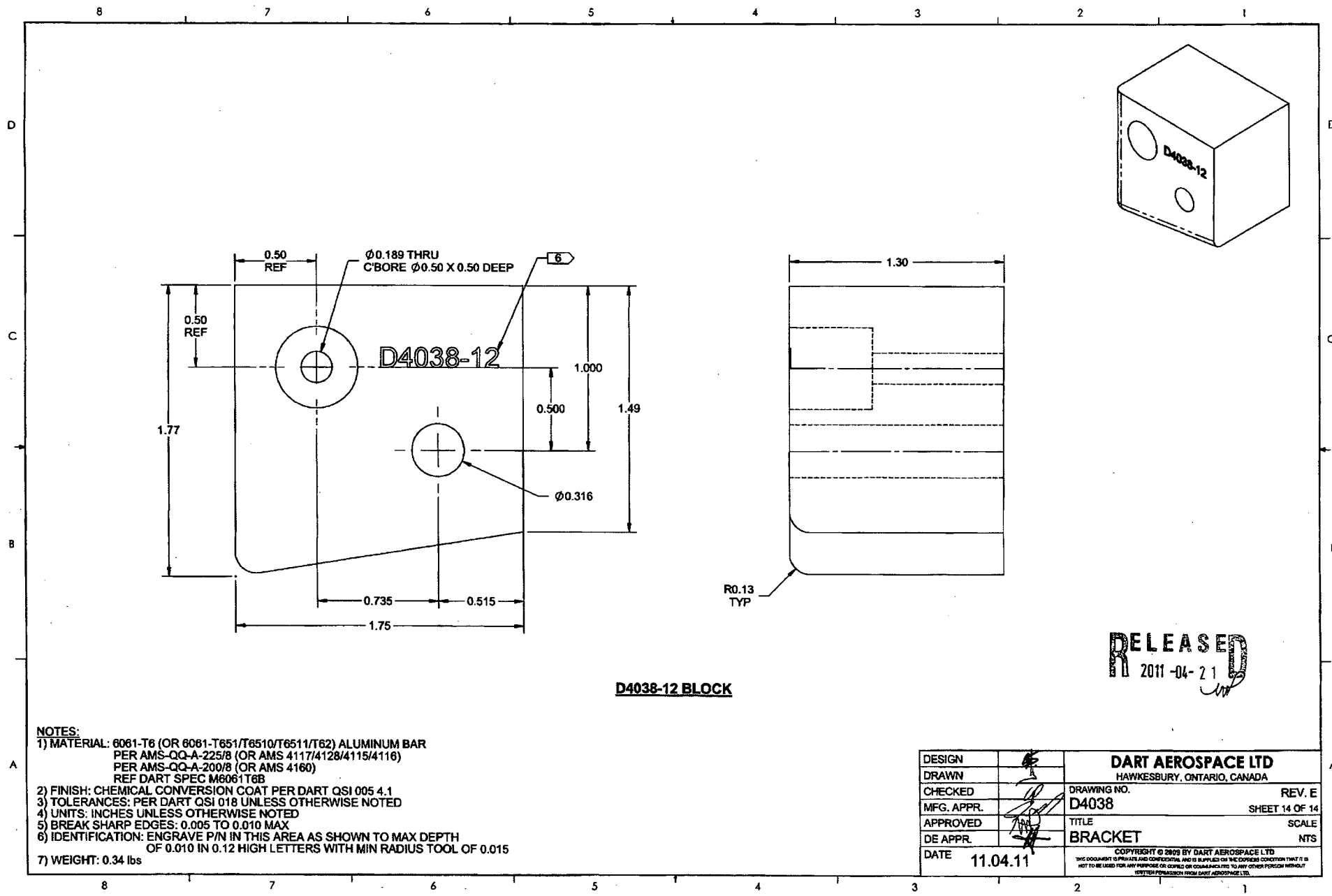
**NOTES:**

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) ALUMINUM BAR  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN TO MAX DEPTH  
OF 0.010 IN 0.12 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 0.31 lbs

|            |          |                                                                                                                                                                                                                                                                                                                                                        |                |
|------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|
| DESIGN     |          | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                                                                              |                |
| DRAWN      |          | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                                                                                            |                |
| CHECKED    |          | DRAWING NO.                                                                                                                                                                                                                                                                                                                                            | REV. E         |
| MFG. APPR. |          | <b>D4038</b>                                                                                                                                                                                                                                                                                                                                           | SHEET 12 OF 14 |
| APPROVED   |          | TITLE                                                                                                                                                                                                                                                                                                                                                  | SCALE          |
| DE APPR.   |          | <b>BRACKET</b>                                                                                                                                                                                                                                                                                                                                         | NTS            |
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2011-04-21  
MP





NOTES:

- 1) MATERIAL: 6061-T6 (OR 6061-T651/T6510/T6511/T62) ALUMINUM BAR  
PER AMS-QQ-A-225/8 (OR AMS 4117/4128/4115/4116)  
PER AMS-QQ-A-200/8 (OR AMS 4160)  
REF DART SPEC M6061T6B
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: ENGRAVE P/N IN THIS AREA AS SHOWN TO MAX DEPTH  
OF 0.010 IN 0.12 HIGH LETTERS WITH MIN RADIUS TOOL OF 0.015
- 7) WEIGHT: 0.34 lbs

D4038-12 BLOCK

RELEASED  
2011-04-21

|                                                                                                                                                                                                                                |                                                                                       |                                        |                |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------|----------------|
| DESIGN                                                                                                                                                                                                                         |  | <b>DART AEROSPACE LTD</b>              |                |
| DRAWN                                                                                                                                                                                                                          |                                                                                       | HAWKESBURY, ONTARIO, CANADA            |                |
| CHECKED                                                                                                                                                                                                                        |  | DRAWING NO.                            | REV. E         |
| MFG. APPR.                                                                                                                                                                                                                     |                                                                                       | D4038                                  | SHEET 14 OF 14 |
| APPROVED                                                                                                                                                                                                                       |  | TITLE                                  | SCALE          |
| DE APPR.                                                                                                                                                                                                                       |                                                                                       | BRACKET                                | NTS            |
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